

Listing of Claims

1. (Previously Presented) An article for controlling odor, the article comprising a substrate which includes an odor absorbing agent and at least one visual indicating agent in an amount effective to change color when exposed to an odor, the odor absorbing agent comprising nanoparticles, the visual indicating agent being present in differing concentrations in two or more zones on the substrate, the concentrations in the two or more zones configured to indicate to the user the odor absorbing capacity remaining in the article, wherein the at least one visual indicating agent is selected from the group consisting of 4,4'-bis(dimethylamino)-benzhydrol, pararosaniline, alpha-naphtholbenzene, and naphthochrome green.

2. (Cancelled)

3. (Cancelled)

4. (Previously Presented) The article of claim 1, wherein the indicating agent indicates when the article has been exposed to sufficient odor to saturate the article by changing color.

5. (Previously Presented) The article of claim 1, wherein the substrate is a disc, patch, strip, or combination thereof.

6. (Previously Presented) The article of claim 1, wherein the indicating agent is printed in solution onto the substrate and allowed to dry so that the dried residue of the solution remains on the substrate.

7. (Previously Presented) The article of claim 1, wherein the indicating agent is coated in solution onto the substrate and allowed to dry so that the dried residue of the solution remains on the substrate.

8. (Original) The article of claim 1, wherein the indicating agent is applied in differing concentrations in two or more zones to indicate how much of the odor absorbing capacity of the article has not been utilized.

9. (Previously Presented) The article of claim 1, wherein the indicating agent is applied in differing concentrations in two or more zones to indicate how much of the odor absorbing capacity of the article has been utilized.

10. (Previously Presented) The article of claim 1, wherein the odor is selected from the group consisting of body odor, foot odor, urinary odor, tobacco odor, meat odor, garbage odor, basement odor, and odors prevalent in other odorous elements and compounds, the odorous elements and compounds selected from the group consisting of mercaptans, sulfide, hydrogen sulfide, amines, ammonia, sulfur, sulfur degradation products, aliphatic acids, isovaleric acid, butyric acid and acetic acid.

11. (Cancelled)

12. (Previously Presented) The article of claim 1, wherein the visual indicating agent is 4,4'-bis(dimethylamino)-benzhydrol.

13. (Cancelled)

14. (Original) The article of claim 1, which is selected from a disposable odor absorbing sheet, diaper, undergarment pad, face mask, filtration device, sanitary napkin, tampon, panty shield and incontinence pad.

15-16. (Cancelled)

17. (Previously Presented) A method for visually indicating when an article for controlling odor is saturated comprising the steps of:

introducing into or onto the article an odor absorbing agent, the odor absorbing agent comprising nanoparticles;

introducing into or onto the article a visual indicating agent that is color sensitive to the odor, wherein the visual indicating agent is introduced in different concentrations in two or more zones into or onto the article, the visual indicating agent configured to provide a change in color that is indicative of the odor absorbing capacity remaining in the article, wherein the visual indicating agent is selected from the group consisting of 4,4'-bis(dimethylamino)-benzhydrol, pararosaniline, alpha-naphtholbenzene, and naphthochrome green, and

observing the change in color of the visual indicating agent when the article is saturated with the odor.

18. (Cancelled)
19. (Cancelled)
20. (Previously Presented) The article of claim 1, wherein the nanoparticles include silica, alumina, or combinations thereof.
21. (Previously Presented) The article of claim 1, wherein the substrate comprises fibers.
22. (Previously Presented) The article of claim 1, wherein the visual indicating agent is pararosaniline base.
23. (Previously Presented) The article of claim 1, wherein the visual indicating agent is present in an amount of from about 0.001 to 15 wt.%.
24. (Previously Presented) The article of claim 1, wherein the visual indicating agent is present in an amount of from about 0.1 to 1 wt.%.

25. (Previously Presented) The method of claim 17, wherein the visual indicating agent is 4,4'-bis(dimethylamino)-benzhydrol.

26. (Previously Presented) The method of claim 17, wherein the visual indicating agent is pararosaniline base.

27. (Canceled)

28. (Previously Presented) The method of claim 17, wherein the article is selected from a disposable odor absorbing sheet, diaper, undergarment pad, face mask, filtration device, sanitary napkin, tampon, panty shield and incontinence pad.

29. (Previously Presented) The method of claim 17, wherein the article comprises a substrate on which the visual indicating agent is disposed.

30. (Canceled)

31. (Previously Presented) The article of claim 1, wherein the visual indicating agent is alpha-naphtholbenzene.

32. (Previously Presented) The article of claim 1, wherein the visual indicating agent is naphthochrome green.

33. (Previously Presented) The method of claim 17, wherein the visual indicating agent is alpha-naphtholbenzene.

34. (Previously Presented) The method of claim 17, wherein the visual indicating agent is naphthochrome green.

35. (Previously Presented) The article of claim 1, wherein the nanoparticles are modified with a metal ion, a chlorite ion, a persulfate ion, a permanganate ion, or combinations thereof.

36. (Previously Presented) The article of claim 35, wherein the metal ion is selected from the group consisting of copper ion, silver ion, gold ion, iron ion, and combinations thereof.

37. (Previously Presented) The method of claim 17, wherein the nanoparticles include silica, alumina, or combinations thereof.

38. (Previously Presented) The method of claim 17, wherein the nanoparticles are modified with a metal ion, a chlorite ion, a persulfate ion, a permanganate ion, or combinations thereof.

39. (Previously Presented) The method of claim 38, wherein the metal ion is selected from the group consisting of copper ion, silver ion, gold ion, iron ion, and combinations thereof.

40. (Previously Presented) The article of claim 1, wherein the odor absorbing agent further comprises activated charcoal, sodium bicarbonate, clay, zeolites, molecular sieves, or combinations thereof.

41. (Previously Presented) The method of claim 17, wherein the odor absorbing agent further comprises activated charcoal, sodium bicarbonate, clay, zeolites, molecular sieves, or combinations thereof.

42. (Previously Presented) The method of claim 17, wherein at least one of the zones including the visual indicating agent is configured to change from a first color to a second color, the second color signifying that the article is saturated with odor.

43. (Previously Presented) The method of claim 17, wherein at least one of the zones including the visual indicating agent is configured to change from a first color to colorless, the lack of color signifying that the article is saturated with odor.

44. (Previously Presented) The method of claim 17, wherein at least one of the zones including the visual indicating agent is configured to change from colorless to a first color, the first color signifying that the article is saturated with odor.